

crystal material. Such material has a helical structure and, when aligned in a polarizer, will transmit right or left circularly polarized light depending on the handedness of the helical material. Reference to such polarizers is made in the Applicants' specification at page 20, line 27 to page 21, line 9. Accordingly, the Applicants request withdrawal of this rejection.

### **§ 103 Rejections**

Claims 1-4, 6-12, and 16-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over European Patent Application Publication No. 0487047 to Shingaki et al. (hereinafter "Shingaki") in view of U.S. Patent No. 5,568,283 to Mitsutake et al. (hereinafter "Mitsutake"). Claims 5 and 13-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shingaki in view of Mitsutake and further in view of U.S. Patent No. 5,986,730 to Hansen et al. (hereinafter "Hansen"). The Applicants traverse these rejections.

The claimed inventions of the present application are significantly different from the devices disclosed in the cited references. In particular, the claims are directed to a single film that includes both a polarizer element and a separate polarization rotator element. The prior art references cited in the Office Action, at best, disclose configurations in which separate polarizer elements and polarization rotator elements are included in a device construction. There are a number of advantages to having a single film that includes both the polarizer element and polarization rotator element. First, such a flexible film can be manufactured, stored, and shipped as roll-goods. These roll-goods can then be cut or otherwise converted as desired. The use of a single film can also enhance and simplify manufacture of a display or other device because there will be fewer parts to assemble. In addition, when there is a need or preference to align the polarization axis of the polarizer element and an optical axis or initial alignment direction of the polarization rotator, this alignment can be achieved during the manufacture of the film. Otherwise, the alignment of separate polarizer and polarization rotator components would need to be done during assembly of the display or other device and would be subject to operator error. Accurate alignment can greatly affect the characteristics of the end product and it is generally much easier to control alignment during manufacture than during assembly.

The Office Action acknowledges that Shingaki does not teach a film as recited in the invention. The Office Action then refers to Mitsutake. However, Mitsutake does not teach or

suggest the recited film either. In particular, the polarizer of Mitsutake is a polarizing beam splitter 19 (see Fig. 1) which does not appear to be a film but instead includes a glass prism structure. In addition, Hansen does not address this deficiency of the other references. Thus, there is no teaching or suggestion of a single film having a polarizer element and a polarization rotator element, as recited in the present claims.

In addition, the dependent claims include other patentable elements. For example, claims 2-5 and 26 recite that the film includes a second polarizer element. None of the cited references teach or suggest a film with two polarizer elements and a polarization rotator element.

Claim 6 recites an alignment layer disposed between the polarizer element and the polarization rotator element. The Office Action directs attention to a portion of Shingaki for a teaching regarding an alignment layer. However, this portion of Shingaki refers to an alignment layer on the bistable FLC device (e.g., reference numeral 2 of Fig. 1) and is therefore not between the alleged polarization rotator element (reference numeral 5) and polarizer element (reference numeral 3).

Claim 8 recites that the surface of the polarizer element facilitates alignment of the polarization rotator element (e.g., the polarizer element acts as an alignment layer for the polarization rotator element). Such an arrangement requires that the polarizer element and polarization rotator element be in contact. This is not taught or suggested in Shingaki.

Claims 18-20 recite a polarizer element that preferentially transmits a substantial portion of light having a first circular polarization. None of the cited references teach or suggest such a polarizer element. All of the cited references appear to use linear polarizers.

Claims 22-24 recites a polarizer disposed between the film (which has a polarizer element and a polarization rotator element) and a liquid crystal cell. None of the cited references teach or suggest such a configuration.


Other dependent claims recite additional patent distinctions.

For at least all of the forgoing reasons, the Applicants submit that the present claims 1-26 are patentable over the cited references. Accordingly, the Applicants request withdrawal of these rejections.

In view of the above, it is submitted that the application is in condition for allowance. Reconsideration of the application is requested. Allowance of claims 1-26, as amended, at an early date is solicited.

Respectfully submitted,

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Date

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